1877, presenting all the symptoms of a well-marked state of chloro-anæmia. In the hospital the patient continued to grow worse, and, without ever presenting fever, and preserving motion, sensation, and intellect throughout, she died on November 12, in spite of the abundant use of tonics and chalybeates, and the administration of meat and wine.

At the necropsy there was found to be extraordinary paleness of the skin, mucous membranes, and almost all the tissues of the different organs. The *panniculus adiposus* was abundant. The cœliac ganglia, examined in the fresh state, showed an abundant proliferation of nuclei, in some parts filling the capsules containing the nerve-cells. These appeared for the most part strongly pigmented; and their protoplasm was so turbid that it was difficult to see the nucleus without employing reagents. The bloodvessels were empty. Subsequent examination of the same ganglia after hardening in alcohol revealed other noteworthy peculiarities. On looking at one of the groups of nerve-cells, there were seen, here and there, parts where the cells were replaced by a considerable number of small globular elements, giving to the tissue the appearance of granulation-tissue. An analogous nuclear proliferation, but less abundant, was observed in other parts of the ganglion, and especially among the nerve-fibres. Those last, and especially the medullated cells, had in large numbers undergone fatty degeneration. In the bloodvessels, the epithelioid lining was much developed and in a state of degeneration; they were empty, and their walls were plaited together; around them was a large zone of fibrillar connective tissue, poor in nuclei, and in some parts connective tissue with narrow meshes formed by the anastomosis of the prolongations of stellate cells.

The author regards the case as one of progressive pernicious anæmia, in consequence of the course of the disease (ascending and slow, never interrupted, and ending in death), of the paleness of the skin and mucous membranes, of the prostration of strength, of the cardiac and gastro-enteric disturbances, and of the appearances at the necropsy; and he explains the connection of the anæmia with the cœliac ganglia as follows.

The changes in the ganglia, by their influence especially in the chylopoietic apparatus, must induce disorder of the circulation in the stomach and intestines, and disturb digestion, the functions of the intestines, and the absorption of chyle. This is a first reason of the dyscrasia of the blood. Secondly, the above-mentioned ganglia exert a retarding action on the heart, and the number of respirations is in strict and direct relation to the cardiac contractions; hence, when once the cœliac ganglia are diseased, there should be a diminished absorption of oxygen—that is, diminished oxidation. Here is the reason why the blood must contain an excess of fatty matters, which are deposited in the tissues that are found to contain them.—*London Med. Record*, Oct. 15, 1878.

Report on Membranous Croup and Diphtheria.

At a late meeting of the Royal Medical and Chirurgical Society, Dr. ANDREWS read the report of the scientific committee appointed to examine into the relation existing between the diseases commonly known respectively as membranous croup and diphtheria, of which the following is a summary of conclusions:—

1. Membranous inflammation confined to, or chiefly affecting, the larynx and trachea, may arise from a variety of causes, as follows:—

(*a*) From the diphtheritic contagion.

(*b*) By means of foul water, or foul air, or other agents, such as are commonly concerned in the generation or transmission of zymotic disease (though whether as mere carriers of contagion cannot be determined).

(*c*) As an accompaniment of measles, scarlatina, or typhoid, being associated with these diseases, independently of any ascertainable exposure to the especial diphtheritic infection.

(*d*) It is stated, on apparently conclusive evidence, although the committee have not had an opportunity in any instance of examining the membrane in question, that membranous inflammation of the larynx and trachea may be produced by various accidental causes of irritation—the inhalation of hot water or steam, the contact of acids, the presence of a foreign body in the larynx, and a cut throat.

2. There is evidence, in cases which have fallen under the observation of members of the committee, and are mentioned in the tables appended, that membranous affection of the larynx and trachea has shortly followed exposure to cold, but their knowledge of the individual cases is not sufficient to exclude the possible intervention, or coexistence, of other causes. The majority of cases of croupal symptoms definitely traceable to cold appear to be of the nature of laryngeal catarrh.

3. Membranous inflammation, chiefly of the larynx and trachea, to which the term "membranous croup" would commonly be applied, may be imparted by an influence, epidemic or of other sort, which in other persons has produced pharyngeal diphtheria.

4. And, conversely, a person suffering with the membranous affection, chiefly of the air-passages, such as would commonly be termed membranous croup, may communicate to another a membranous condition limited to the pharynx and tonsils, which will be commonly regarded as diphtheritic.

It is thus seen that the membranous affection of the larynx may arise in connection with common inflammation, or with specific disorders of several kinds, the most common of which in this relation is that which produces similar changes elsewhere, and is recognized as diphtheria.

In the larger number of cases of membranous affection of the larynx the cause is obscure (*i. e.*, in any given case it is difficult to predicate the particular cause in that case).

Among those in which it is apparent common irritation seldom presents itself as the source of the disease; accidental injury is but very infrequently productive of it. But few cases of undoubted origin from exposure to cold are on record.

On the other hand, in a very large number of cases infective or zymotic influence is to be traced.

The membrane, even when chiefly laryngeal, is more often than not associated with some extent of a similar change in the pharynx or in the tonsils; and whether we have regard to the construction of the membrane, or to the constitutional state as evinced by the presence of albumen in the urine, it is not practicable to show an absolute line of demarcation (save what depends upon the position of the membrane) between the pharyngeal and laryngeal forms of the disease.

The facts before the committee only warrant them in the view that when it obviously occurs from a zymotic cause or distinct infection, and primarily affects the pharynx, constitutional depression is more marked, and albuminuria is more often and more largely present, though in both conditions some albumen in the urine is more frequently present than absent.

The most marked division indicated by the facts before the committee is that between membranous and non-membranous laryngitis.

The committee suggest that the term "croup" be henceforth used wholly as a clinical definition, implying laryngeal obstruction occurring with febrile symptoms in children. Their croup may be membranous or not membranous, due to diphtheria or not so.

The term "diphtheria" is the anatomical definition of a zymotic disease, which may or may not be attended with croup.

The committee propose that the term "membranous laryngitis" should be employed, for the avoidance of confusion, whenever the knowledge of the case is such as to allow of its application.—*Lancet*, Oct. 26, 1878.

Croup cured by Hypodermic Injection of Sulphate of Atropia.

Dr. DE PONTÈVES, of Antibes, has published (*L'Union Médicale*) a full account of a case of croup where a fatal termination seemed inevitable, but which resulted in recovery, owing, he believes, to hypodermic injections of sulphate of atropia. On the third day of the attack he found his patient—a child three years old—to whom the usual remedies had been given, in a state of commencing asphyxia. The efforts to breathe could be heard in the street; the epigastrium, instead of rising at each respiration, was hollow; the face and neck were enormously swollen and of a violet colour; there had been no attempt at vomiting, though large doses of sulphate of copper had been given. At once three drops of a one per cent. solution of sulphate of atropine were injected by a Pravaz syringe, on the left side of the neck, on a level with the pneumogastric. At the end of a few minutes a change for the better took place, the respiration became less frequent, and the crowing diminished. Four hours afterwards the child was found tranquil, and, though the respiration was still troubled, dyspnœa was no longer intense. A second injection was given and the amelioration shortly afterwards became very marked. A few days afterwards the recovery was complete. *A priori* the treatment is a rational one. The real cause of death in croup does not reside in the false membranes. M. Jaccoud, in his *Traité de Physiologie Interne*, speaks of the "very numerous cases in which croup kills without laryngeal obstruction sufficient to explain death." He adds that, "though often the expulsion of the false membrane is followed by great relief marking the diminution of the dyspnœa, yet the cases are far from rare in which the remission is absent or inappreciable—a fact sufficient to prove that croupal dyspnœa has more causes than the obstruction of the larynx by exudation." When the pneumogastric nerves of dogs are divided in the neck, what always happens is the occlusion of the glottis from paralysis of the recurrents, and after death there is found intense congestion of the lungs, pulmonary œdema, dilatation of the smaller bronchi, and vesicular emphysema. Now these symptoms and lesions are also observable in croup and capillary bronchitis. The essential cause, therefore, of asphyxia in croup seems to be the paralysis—more or less complete—of the pneumogastric. This view is supported by the fact that it is difficult, and often impossible, to produce vomiting. Belladonna, being an excitant specially of the pneumogastric, appears to be indicated in cases such as have been detailed.—*Dublin Journal of Med. Science*, Nov. 1875.

Lesions of Salivary Glands in Diphtheria.

In a paper recently contributed to the *Revue Mensuelle* MM. BALZER and TALAMON describe certain inflammatory changes in the parotid and submaxillary glands as almost constant concomitants of pharyngeal diphtheria. They remark that these changes have been strangely overlooked; for, although indicated by Dr. Samuel Bard, of New York, so long ago as 1771, in his work "On the Nature, Cause, and Treatment of Suffocative Angina," as occurring in some cases, yet Bretonneau and all succeeding authorities have considered that when